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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,137	10/10/2003	Krzysztof Matyjaszewski	00798DIVCIP	1296

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EXAMINER

RABAGO, ROBERTO

ART UNIT PAPER NUMBER

1713

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/684,137

Applicant(s)

MATYJASZEWSKI ET AL.

Examiner

Roberto Rábago

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) 46 and 47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. Claims 1, 2, 10, 11, 16, 18, 24, 25, 30, 32, 33, 41 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Simone et al. (US 3,037,004) for the reasons set forth in item 7 of the Office action mailed 1/12/2006.

Applicant's arguments filed 11/7/2006 have been fully considered but they are not persuasive. Applicants incorrectly imply that all of the limitations of claim 17, which was not previously rejected over this reference, have been incorporated into claims 1 and 32. The limitation which precluded prior rejection of claim 17 over this reference was that requiring "conditional metal-radically transferable atom or group phylicity of greater than 10." The assignment of a physical value to this parameter is understood to require that the system function as an atom/group transfer reaction system. The undefined term "phylicity" could not be found in any chemical dictionary, and a keyword search on the US Patent database located only ten occurrences, none of which included a definition. However, the term is discussed in the specification at [0096] through [00105]. The phylicity, as used in the instant specification and claims, appears to be the complexed/uncomplexed stability parameter defined for the higher oxidation state complex within a specific ATRP reaction system, and is identified in the specification example at [0097] through [00102] as parameter $\beta_{1,x}$. Simone does not disclose an atom-transfer reaction system, and therefore would include no higher/lower

oxidation state ATRP metal complex for which to establish a phylicity value of greater than 10.

The declaration of Nicolay V. Tsarevsky has been considered, but is not persuasive. The declaration makes only brief remarks directed to Simone, found in the paragraph bridging pages 3-4 of the declaration. Declarant indicates that Simone fails to include exchange or equilibrium between active and dormant species. However, these limitations are not found in any rejected claim. In fact, the claims require no specific manner of polymerization, no ATRP system, no "controlled" polymerization, and no exchange/equilibrium between any active or dormant species.

Claim Rejections - 35 USC § 103

2. Claims 1-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matyjaszewski et al. (US 5,807,937) for the reasons set forth in item 9 of the Office action mailed 1/12/2006.

Applicant's arguments filed 11/7/2006, as well as the declaration of Nicolay V. Tsarevsky filed 5/12/2006, have been fully considered but they are not persuasive. The applied reference has described, but not exemplified, systems which are stated to be effective for the polymerization of acidic monomers under ATRP conditions. Missing from the reference is the reporting of certain claimed parameters as previously identified, and the burden was shifted to applicants to show that the reference failed to include the claimed parameters. The shifting of burden was proper given the similarity of the methods disclosed in the reference, the common inventorship between the

reference and the instant application, and the fact that applicants' claims require obscure parameters not commonly measured in the polymerization literature. In response, neither the content of the declaration nor the supporting traversal argument provide more than allegation that reference complexes are "not suitable" for the polymerization of acidic monomers. However, given the similarity of the methods disclosed in the reference, such allegations cannot substitute for a reasonable showing that components disclosed and suggested in the reference would not have the claimed parameters.

Applicants' state that a reference entitled "Factors Determining the Performance ..." was attached in support of their argument. However, no such attachment was filed with applicants' response, and therefore this reference has not been considered.


3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberto Rábago whose telephone number is (571) 272-1109. The examiner can normally be reached on Monday - Friday from 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Roberto Rábago
Primary Examiner
Art Unit 1713

RR
January 19, 2007